

Extruded Acrylic Sheet – Material Datasheet

Property ^(a)		ASTM Method	Typical Value (0.250" Thickness) ^(b)	
Mechanical	Specific Gravity	D 792	1.19	
	Tensile Strength	D 638	10,000 psi (69 M Pa)	
	Elongation, Rupture		4.5%	
	Modulus of Elasticity		400,000 psi (2800 M Pa)	
	Flexural Strength	D 790	17,000 psi (117 M Pa)	
	Modulus of Elasticity		480,000 psi (3300 M Pa)	
	Compressive Strength (Yield)	D 695	17,000 psi (117 M Pa)	
	Impact Strength		0.4 ft. lbs/in. of notch	
	Izod Milled Notch	D 256	(21.6 J/m of notch)	
	Rockwell Hardness	D 785	M-93	
	Barcol Hardness	D 2583	48	
	Optical	Refractive Index	D 542	1.49
		Light Transmission, Total	D 1003	92%
Thermal	Forming Temperature	—	Approx. 300°F (149°C)	
	Deflection Temperature under load, 264 psi	D 648	195°F (91°C)	
	Vicat Softening Point	D 1525	220°F (105°C)	
	Maximum Recommended Continuous Service Temperature	—	160°F(c) (71°C)	
	Coefficient of Linear Thermal Expansion	D 696	0.000040 in/in - °F (0.000072 m/m - °C)	
	Coefficient of Thermal Conductivity	Cenco-Fitch	1.3 BTU/(Hr) (Sq. Ft.) (°F / in.) (0.19 w/m•K)	
	Flammability, Burning Rate (0.125" thickness)	D 635	1.0 in/min. (25 mm/min.)	
	Self Ignition Temperature	D 1929	850°F(455°C)	
	Specific Heat @ 77°F		0.35 BTU/(lb.) (°F) (1470J/Kg•K)	
	Smoke Density Rating	D 2843	4.8%	
	Electrical	Dielectric Strength Short Time (0.125")	D 149	430 volts/mil (17 KV/mm)
		Dielectric Constant		
		60 Hertz	D 150	3.6
1000 Hertz			3.3	
1000000 Hertz			2.8	
Dissipation Factor				
60 Hertz		D 150	0.06	
1000 Hertz			0.04	
1000000 Hertz			0.02	
Volume Resistivity	D 257	10 ¹⁶ ohm-cm		
Surface Resistivity	D 257	10 ¹⁵ ohms		
Water Absorption				
24 hrs @ 73°F	D 570	0.2%		
Odor	—	None		
Taste	—	None		

NOTES: (a) Typical values; should not be used for specification purposes.

(b) Values shown are for 0.250" thickness. Some values will change with thickness or pigmentation.

(c) It is recommended that temperatures not exceed 160°F for continuous service, or 190°F for short intermittent use.

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